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WISDOM IS COMMON SENSE TO AN UNCOMMON DEGREE

# THE REA LINEMAN

RURAL ELECTRIFICATION ADMINISTRATION

U. S. DEPARTMENT OF AGRICULTURE

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St. Louis, Mo.

## HELPER BURNED ON HEAD

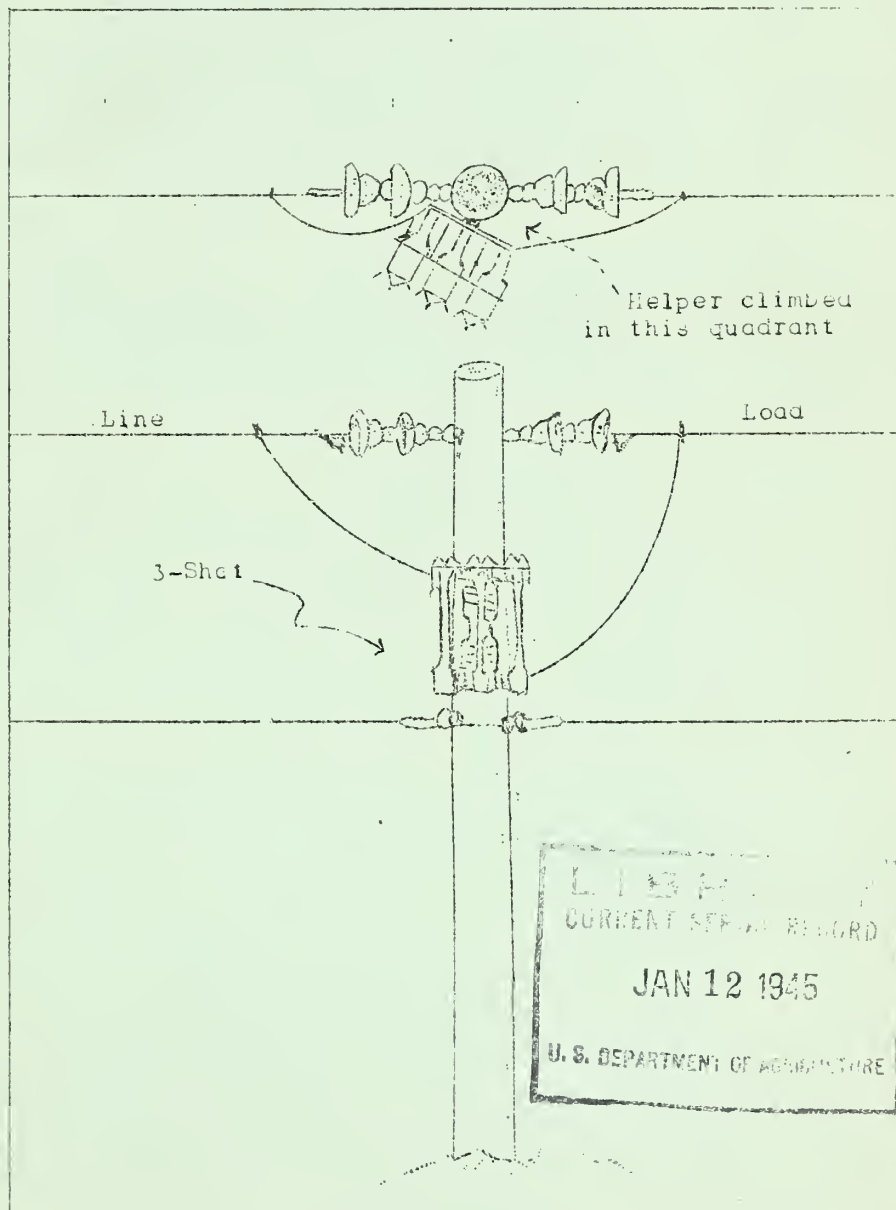
### REPORT:

A helper was installing a secondary underbuild on a single-phase line. He climbed a single-phase double dead end pole with a three-shot cutout mounted directly to the pole between the phase and the neutral. The helper's head or hat contacted the three-shot and his arm was against the neutral. Result: Burns on face, forehead and arm.

### DISCUSSION:

Almost any able-bodied man can learn to climb poles in a very short time. Most beginners are anxious to learn to do line work, and within a short time these men can do a good part of the work to be done on the average cooperative, but there is one thing that cannot be overlooked. Considerable time is required to learn to keep your distance. In other words, to learn to stay away from energized parts. Visually, there is no difference between a dead line and a hot line.

The average beginner should have a minimum of two years of dead line before he works on poles carrying energized circuits. The majority of single-phase lines could be de-energized at a time convenient to the members affected by the outage, and in the absence of first class linemen any line should be de-energized and grounded before the work is performed by helpers.





The Line West of Here Crosses a Long Valley with Lots of Trees

A Lineman was Located Here to Check for Sag and Inform Holt

## WATCH OUT ON UNDERBUILDS!

A line crew was installing a primary underbuild on a high voltage transmission line. The going was rough, requiring a team of horses to pull out the wire. A stretch of about a mile was dead-ended on one end and laid on arms up to a convenient snubbing point. The slack was pulled out with the horses and when the conductor was about up to sag, an arc was heard. The teamster looked around and saw a lineman lying on the ground about 20 feet from the reel rack.

This lineman had been on another job, and in passing by had stopped to visit with the crew. The foreman immediately applied artificial respiration. The victim re-

gained consciousness and spoke a few words, but again lost consciousness. A doctor was called and arrived approximately twenty-five minutes after the accident. The doctor administered a hypodermic and ordered the man to the hospital where he was pronounced dead on arrival. No burns were found on the body. No one saw him receive the shock. The wire had not been cut off from the reels and it was thought that the lineman contacted the wire or the reel rack.

This occurrence points out the responsibility of the supervisor in keeping all bystanders absolutely in the clear. There is also some question of the advisability of using a team to

(Cont'd on page 4)

Conductors were pulled Thru Blocks at Top of Pole Only

Line Foreman was Half Way up this Pole Directing the Men Leading the Horses and Watching for Signals from Lineman on the Road

Conductor Being Pulled up to Sag

Position Where Man was Last Seen Standing - 50' From Trailer

Position Where Man was Found

Insulated Link Stick

Single Tree, Man Leading Horse

Same as Above

Reel Trailer

Fence

Road to Farm

## IT COULD HAPPEN TO YOU

Reports received in October:

1. While descending pole, hook cut out. Injured fell 8 feet; strained a muscle in arm.

2. Lineman working 7,200-volt circuit with rubber gloves, elbow contacted phase, one foot on the neutral. Electric shock fatal.

3. Employee trimming trees climbing with lineman's pole-climbing hooks. One hook became clogged with bark. In attempting to free gaff, injured gaffed himself; 2-inch cut on inside of leg.

4. Winch line slipped, causing reel of wire to fall and mash index finger.

5. Lineman reading meter, bitten by dog.

6. Pole loading gin pole was being lowered. Swung sideways striking lineman in abdomen. Ten days time lost.

7. Dropped trailer tongue on toe. Bruised and crushed toe.

8. Ladder dropped on foot; bruised toe became infected. Six days time lost.

9. Lineman was on back of truck getting some tools. Motion of the truck caused him to fall against a vise on work bench. Bruised back. Two weeks time lost.

10. Lineman changing out insulator; end of tie wire struck him in the eye.

11. Lineman lowering hoist from pole. Hoist came loose from hand line, striking injured on the head. Wound on top of head. Several days lost.

## LINEMEN'S RUBBER PROTECTIVE EQUIPMENT

Standards for materials to be used in linemen's rubber equipment were discussed at length at a recent New York meeting (sponsored by the War Production Board) of the American Standards Association's Committee on Linemen's Rubber Protective Equipment, D. A. Fleming, a member of the committee, reports.

The committee was agreed that synthetic rubber could be used for line hose, hoods and blankets, but only pure natural rubber in gloves. No decision was reached, pending further investigation, as to exact standards for materials to be used in leather protectors, and exact measurements of fingers and hand portion of the protector. REA welcomes comment from cooperative staff members on these points, as well as on the need for the adjustment strap and reinforcement at points of extra wear.

REA's Safety Unit feels that fingers of some protectors are too short, allowing the seams to break and the rubber to push out through the ends of the fingers of the protectors. We believe the seam on the forepart of the thumb should have additional reinforcement; that the adjustment strap is not necessary and might be considered a hazard because of its tendency to catch on protruding objects that also damage the glove.

We definitely do not like the open-back protector and agree that full-length protectors should be used. Many gloves which have broken under test show signs of damage on the inside of the gauntlet because of the use of the short leather protector. We believe the gauntlet should be of light weight material, reinforced at the wear points in such a way as to avoid making the cover too stiff.

Please let us have your comments and send samples of worn protectors so that we may make a better recommendation on the extra points of wear.

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## WATCH OUT ON UNDERBUILDS!

(Cont'd from page 3)

pull slack under energized circuits. In this particular case some thought was given to the probability of the conductor bouncing up into the energized circuit above, because an insulated link stick was used between the single tree and the horses to protect them from electric shock. Had this wire which was being strung been grounded, in all probability this man would be alive today.

If possible, high voltage lines should be de-energized to install underbuilds; but, in the event that the underbuild is installed with other circuits energized, every possible precaution must be followed. Aside from the danger of someone getting hurt, if this was an important line, why take a chance of an outage?